

REMARKS

Claims 1-49 have been amended. New claims 50-55 have been added. Paragraph [0028] of the specification has been amended. Reexamination and reconsideration are requested.

In the office action, dated July 8, 2005, the examiner rejected claim 49 under 35 U.S.C. § 112, second paragraph, as indefinite. The examiner rejected claims 1-5, 10-12, 17-22, 27-29 and 34-43 under 35 U.S.C. § 102(b) as being anticipated by Yanagihara, et al., JP 2000-169717 ("Yanagihara"). The examiner also rejected claims 6-9, 13-16, 18, 23-26, 30-33 and 44-48 under 35 U.S.C. § 103(a) as being obvious over Yanagihara in view of Grier, "Silver and its Compounds" in Antiseptics and Disinfectants ("Grier").

However, none of the pending claims are anticipated by or obvious over the cited references especially in light of the amendments, and the examiner's rejections are traversed, as is explained in more detail below.

Re the claims:

Claims 1-49 have been amended to more clearly claim the subject matter. No new matter is introduced.

Claim 43 has also been amended to correct a typographical error. No new matter is introduced.

New claims 50-55 have been added. No new matter is introduced.

Re the specification:

The specification has been amended to correct typographical errors and delete an extraneous line, as suggested by the examiner. No new matter is introduced.

Response to the Examiner's Rejections

Re Rejections of Claim 49 Under § 112, Second Paragraph

Legal Standard

Section 112, second paragraph, requires that the claims particularly point out and distinctly claim what the applicant regards as his invention. 35 U.S.C. § 112. The standard is one of reasonable particularity and completeness. MPEP § 2173.02. "The indefiniteness inquiry focuses on whether those skilled in the art would understand the scope of the claim when the claim is read in light of the rest of the specification." *Union Pacific Res. Co. v. Chesapeake Energy Corp.*, 236 F.3d 684, 691 (Fed. Cir. 2001); *Credle v. Bond*, 25 F.3d 1566, 1576 (Fed. Cir. 1994) (all that is required under § 112, ¶2 is that one of ordinary skill in the art would understand the claim language based on the specification and the drawings). As such, the Patent Office does not permit *per se* rejections of certain language as being indefinite under § 112, ¶ 2. MPEP § 2173.02 ("Office policy is not to employ *per se* rules to make technical rejections.") It is permissible to use later-filed patents and publications to demonstrate that the claim language is sufficiently definite. *In re Glass*, 492 F.2d 1228, 1232 n.6 (CCPA 1974). To reject a claim as covering something other than what the applicant regards as his invention, that rejection must be based on material submitted by the applicant, *other than the specification*, showing that the scope of the claim does not correspond to what the applicant regards as his invention. *In re Conley*, 490 F.2d 972, 976 (CCPA 1974).

Response

The examiner rejected claim 49 as indefinite under 35 U.S.C. § 112, second paragraph, because it required a supply of “Armstrong Excelon floor wax.” The applicants have amended the claim to include the limitation of “a supply of commercially-available floor wax.” This amendment is supported in paragraph [0012] of the specification. Further, the meaning of “commercially-available” is well-understood across a wide variety of fields, as evidenced by Patent Office’s grant of about 662 patents (from 1976 until Sept. 20, 2005) using the claim term, “commercially available.” *See, e.g.,* Moravek, et al., U.S. Patent No. 6,805,906 (“said slurry having a carrier of a commercially available silicone alkyd paint”); Hasegawa, et al., U.S. Patent No. 6,800,185 (“wherein said solution comprising a basic amino acid salt is a commercially available lysine hydrochloride solution”). Consequently, amended claim 49 is sufficiently definite under § 112.

Re Claims Rejected Under 35 U.S.C. § 102(b)

Legal Standard

The standard for lack of novelty, that is, for “anticipation,” under 35 U.S.C. § 102 is one of strict identity. To anticipate a claim for a patent, a single prior source must contain all its essential elements. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986). Invalidity for anticipation requires that all of the elements and limitations of the claims be found within a single prior art reference. *Scripps Clinic & Research Found. v. Genentech, Inc.*, 18 USPQ2d 1001 (Fed. Cir. 1991).

Response

The examiner rejected 1-5, 10-12, 17-22, 27-29 and 34-43 under 35 U.S.C. § 102(b) as being anticipated by Yanagihara, et al. (JP 2000-169717). Those rejections have been rendered moot by the amendments to the pending claims.

With respect to the currently pending claims, amended claims 1-38 and new claims 50-52 are directed to a surface preparation that involves a dispersion of wax and particles consisting essentially of uncombined elemental silver. At least these limitations are not met by Yanagihara. Rather, Yanagihara discloses an antibiotic *ceramic* made by starting with silver nitrate in an aqueous solution:

[T]he flow chart of the generation is shown in drawing 1. It faces generating this AG system antimicrobial agent, a silver nitrate (AgNO_3) is dissolved in pure water, and the ammonia complex of a silver nitrate is generated by adding aqueous ammonia to this.

On the other hand, stirring distribution is carried out, after making pure water distribute ceramic particles, such as titanium oxide particle and a silicon dioxide particle, and adding to the above-mentioned silver nitrate ammonia complex solution. Next, a grape sugar solution is added as a reducing agent into this distributed mixed liquor and it warms at 30-50 degrees C, and stirs for about 1 hour. In addition, when silicon dioxide is used for a ceramic particle, the hydrazine solution is further added as a reducing agent.

Since a silver granule child deposits on the front face of a ceramic particle by this, while sedimenting this and removing supernatant liquor, after precipitate repeats three-five washing with pure water, Ag support antimicrobial is obtained by drying the precipitate.

Yanagihara, ¶¶[0021]-[0023]. Then, the antibiotic ceramic is added to wax:

On the other hand, the manufacture approach of the antibacterial wax concerning this invention makes it a summary to consist of an antimicrobial agent generation process of making a ceramic particle carrying out distributed adhesion of the metal particles of silver and/or

copper, and a compounding operation which carries out distributed combination of this antimicrobial agent at a wax.

Yanagihara, ¶ [0017]. Because Yanagihara does not disclose a dispersion of wax and “particles consisting essentially of uncombined elemental silver,” Yanagihara cannot anticipate any of claims 1-38 and 50-52.

Method claims 39-49 and 53 are not anticipated by Yanagihara because Yanagihara fails to meet at least the claim limitations directed to providing a supply of particles consisting essentially of uncombined elemental silver and combining the particles of uncombined elemental silver with a wax. In contrast, Yanagihara discloses adding to wax ceramic particles that are bonded to silver precipitated from an aqueous solution of silver nitrate. Thus, because Yanagihara discloses neither providing a supply of particles consisting essentially of uncombined elemental silver, nor combining the particles of uncombined elemental silver with a wax, Yanagihara cannot anticipate any of claims 39-49 and 53.

New claim 54 is not anticipated by Yanagihara either, because Yanagihara does not disclose a dispersion of wax and particles of elemental silver that are not adhered to carrier particles. In fact, Yanagihara discloses silver bonded to carrier particles.

Nor is new claim 55 anticipated by Yanagihara, because Yanagihara does not disclose a dispersion of wax and particles of elemental silver that are not adhered to ceramic particles. In fact, Yanagihara discloses silver bonded to ceramic particles.

Therefore, in light of the amendments, and for the reasons stated above, Yanagihara does not anticipate surface preparation claims 1-38, 50-52, and 54-55, or method claims 39-49 and 53.

Re Rejections Under 35 U.S.C. § 35 U.S.C. § 103(a)

Legal Standard

The test for obviousness under 35 U.S.C. § 103 is whether the claimed invention would have been obvious to those skilled in the art in light of the knowledge made available by the reference or references. *In re Donovan*, 184 USPQ 414, 420, n. 3 (CCPA 1975). It requires consideration of the entirety of the disclosures of the references, as well as the limitations of the claims. *In re Rinehart*, 189 USPQ 143, 146 (CCPA 1976); *In re Boe*, 184 USPQ 38, 40 (CCPA 1974). In making a determination as to obviousness, the references must be read without benefit of applicants' teachings. *In re Meng*, 181 USPQ 94, 97 (CCPA 1974). In addition, the propriety of a Section 103 rejection is to be determined by whether the reference teachings appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed substitution, combination, or other modifications. *In re Lintner*, 173 USPQ 560, 562 (CCPA 1972).

A basic mandate inherent in Section 103 is that a piecemeal reconstruction of prior art patents shall not be the basis for a holding of obviousness. It is impermissible within the framework of Section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. *In re Kamm*, 172 USPQ 298, 301-302 (CCPA 1972). A reference which *teaches away* from the applicants' invention may not properly be used in framing a 35 U.S.C. §103 rejection of applicants' claims. *See United States v. Adams*, 148 USPQ 429 (1966).

Response

The examiner also rejected claims 6-9, 13-16, 18, 23-26, 30-33 and 44-48 under 35 U.S.C. § 103(a) as being obvious over Yanagihara in view of Grier, "Silver and its Compounds" in Antiseptics and Disinfectants. However, those rejections are moot in light of the amendments to the pending claims.

With respect to the currently pending claims, amended claims 1-38 and new claims 50-52 are directed to a surface preparation that involves a dispersion of wax and particles consisting essentially of uncombined elemental silver. However, neither Yanagihara nor Grier either individually or in combination disclose all the claim limitations of claims 1-38 and 50-52 because these references disclose use of silver compounds or silver bonded to a substrate, not particles consisting essentially of uncombined elemental silver, as required by all the claims of the present invention, as amended. First, as mentioned above, Yanagihara discloses an antibiotic ceramic bonded to silver made by starting with silver nitrate in an aqueous solution. Yanagihara therefore does not disclose a dispersion of wax and "particles consisting essentially of uncombined elemental silver."

Second, Grier is directed primarily to the use of silver *compounds* in general. While Grier does disclose use of metallic silver, he does so in the context of metallic silver "deposited electrolytically on various inert surfaces in spongy layers" to filter *water*. Indeed, the present invention teaches away from Grier because a spongy filter element cannot be inserted in an antimicrobial wax preparation to be applied to surfaces. Moreover, as stated in the currently pending application: "The challenge has been to translate the disinfectant properties of metals in water to applications in which it is *impractical or impossible to use them in water*. In particular, a need for such disinfecting

properties is great on many and varied surfaces in public places, such as hospitals and schools, where such surfaces are breeding grounds for bacteria, fungi and other harmful microorganisms.” Specification, [0003] (emphasis added). Therefore, Grier cannot be used as the basis for an obviousness rejection.

Method claims 39-49 and 53 are not rendered obvious by Yanagihara in view of Grier. Neither Yanagihara nor Grier either separately or in combination meet at least the claim limitations directed to providing a supply of particles consisting essentially of uncombined elemental silver and combining the particles of uncombined elemental silver with a wax. In contrast, Yanagihara discloses adding to wax ceramic particles that are bonded to silver precipitated from an aqueous solution of silver nitrate:

[T]he flow chart of the generation is shown in drawing 1. It faces generating this AG system antimicrobial agent, a silver nitrate (AgNO_3) is dissolved in pure water, and the ammonia complex of a silver nitrate is generated by adding aqueous ammonia to this.

On the other hand, stirring distribution is carried out, after making pure water distribute ceramic particles, such as titanium oxide particle and a silicon dioxide particle, and adding to the above-mentioned silver nitrate ammonia complex solution. Next, a grape sugar solution is added as a reducing agent into this distributed mixed liquor and it warms at 30-50 degrees C, and stirs for about 1 hour. In addition, when silicon dioxide is used for a ceramic particle, the hydrazine solution is further added as a reducing agent.

Since a silver granule child deposits on the front face of a ceramic particle by this, while sedimenting this and removing supernatant liquor, after precipitate repeats three-five washing with pure water, Ag support antimicrobial is obtained by drying the precipitate.

Yanagihara, ¶¶[0021]-[0023]. And, as explained above, the present invention teaches away from Grier by solving the problem of disinfecting surfaces where it is impossible or impractical to use metals in water. Therefore, since Grier discloses disinfecting

properties of metals in water, one seeking to solve the problem of the present invention would not rely on Grier at all and Grier cannot be used as the basis of an obviousness rejection.

New claim 54 is not rendered obvious by Yanagihara in view of Grier, because these references, either separately or in combination, do not disclose a dispersion of wax and particles of elemental silver that are not adhered to carrier particles. In fact, Yanagihara discloses silver bonded to carrier particles. And, in Grier “metallic silver” is deposited on an inert substrate as a filter for water, not dispersed in wax as particles consisting essentially of uncombined elemental silver.

Nor is new claim 55 made obvious by Yanagihara in view of Grier. Yanagihara does not disclose a dispersion of wax and particles of elemental silver that are not adhered to ceramic particles. In fact, Yanagihara discloses silver bonded to ceramic particles. And, in Grier, “metallic silver” is deposited on an inert substrate as a filter for water, not dispersed in wax as particles consisting essentially of uncombined elemental silver.

Therefore, in light of the amendments, and for the reasons stated above, Yanagihara in view of Grier do not render obvious surface preparation claims 1-38, 50-52, and 54-55, or method claims 39-49 and 53.


Applicants believe that all of the claims now pending in this patent application, as amended and described above, are allowable and that all other issues raised by the examiner have been addressed. Therefore, applicants respectfully request the examiner to

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reconsider his rejections and to grant an early allowance. If any questions or issues remain to be resolved the examiner is requested to contact the applicants' attorney at the telephone number listed below.

Respectfully submitted,

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